

## 4.5 AGRICULTURE AND SOILS

This section describes agricultural production and soil conditions in the proposed Project area and explains land productivity classifications used to determine Project effects. It then presents laws and regulations pertaining to agriculture and soils, and identifies the significance criteria for the impacts analysis. The impacts from Project construction and operations are then analyzed and mitigation measures are presented. Finally, impacts and mitigation measures for Project alternatives are evaluated relative to the proposed Project.

Comments regarding agriculture and soils that arose during public scoping and the public comment period on the October 2004 Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) focused on damages associated with the permanent acquisition of a pipeline right-of-way (ROW), compensation for the acquisition of ROWs, temporary and permanent loss of agricultural lands, mitigation measures, operational impacts, and credible worst case scenario impacts.

### 4.5.1 Environmental Setting

#### 4.5.1.1 State Overview

California agriculture generated approximately \$27.5 billion in farm value in 2002; California has been the nation's top agricultural state in cash receipts every year since 1948 (California Farm Bureau Federation 2005; University of California Agricultural Issues Center 2000). More than one-third of California agricultural land is used for crops, while almost two-thirds is used for grazing.

#### 4.5.1.2 Agriculture Along Pipeline Routes

##### Center Road Pipeline

The proposed Center Road Pipeline route and its alternatives are located in the Oxnard Plain of Ventura County, California. In 2003, the agricultural industry in Ventura County generated approximately \$1.12 billion per year (Ventura County Agricultural Commissioner 2003). According to the California Department of Finance (2002), 29 percent of the total land area in the county, or 346,000 acres (140,026 hectares [ha]), was dedicated to agricultural use in 1997. The top five crops for Ventura County in 2003 were (in descending order) strawberries, nursery stock, lemons, celery, and avocados (Ventura County Agricultural Commissioner 2003). Strawberries are the predominant crop along the proposed routes for the Center Road Pipeline and its alternatives. The Center Road Pipeline route would traverse approximately 14 miles (22.5 km) of agricultural fields. Table 4.5-1 provides an overview of the types of agriculture along the Center Road Pipeline routes and its alternatives.

**Table 4.5-1 Representative Agriculture Along the Proposed Center Road Pipeline Routes**

<b>Mileposts</b>	<b>Proposed Center Road Pipeline Route</b>	<b>Center Road Pipeline Alternative 1</b>	<b>Center Road Pipeline Alternative 2</b>	<b>Center Road Pipeline Alternative 3</b>
0-1	Turf grass	Turf grass	Turf grass	Turf grass
1-2	Turf grass, root and vegetable crops	Turf grass	Turf grass, root and vegetable crops	Turf grass, root and vegetable crops
2-3	Berries, strawberries, peppers, sod, fallow, row crops	Orchard, berries	Berries, strawberries, peppers, sod, fallow	Berries, strawberries, peppers, sod, fallow, row crops
3-4	Row crops, cabbage, berries, corn, tree crops	Berries	Row crops, cabbage, berries, corn, tree crops	Row crops, cabbage, berries, corn, tree crops
4-5	Berries, corn, tree crops, fallow	Berries, seed	Berries, corn, tree crops, fallow	Berries, corn, tree crops, fallow
5-6	Row crops, berries, sod	Fallow	Row crops, berries, sod	Row crops, berries, sod
6-7	Sod, row crops, fallow	Fallow, row crops	Fallow, row crops	Sod, row crops, fallow
7-8	Row crops, fallow	Not applicable	Fallow, row crops	Row crops, fallow
8-9	Row crops, fallow, cabbage	Strawberries	Fallow, row crops	Row crops, fallow, cabbage
9-10	Orchard	Strawberries, orchard, row crops	Strawberries, fallow	Orchard
10-11	Fallow, orchard	Orchard, strawberries, row crops	Fallow, orchard	Fallow, orchard
11-12	Fallow	Fallow, strawberries	Orchard	Fallow
12-13	Fallow, row crops, orchard	Fallow, turf grass, row crops	Fallow	Fallow, row crops
13-14	Orchard, row crops,	Orchard, strawberries, row crops	Orchard	Fallow, orchard
14-Center Road Valve Station	Orchard	Orchard	Orchard	Orchard

Sources: Ecology and Environment, Inc. 2004; Entrix 2004, 2005.

Approximately 85 percent of the lands adjoining the proposed route are in agricultural use. The U.S. Department of Agriculture (USDA) rates lands by agricultural potential according to their soil types. The first three categories, in descending order of potential, are Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. These are collectively classified as Important Farmland. The Center Road Pipeline and its alternatives would cross through or run adjacent to lands with soil types classified as areas of Prime Farmland and Farmland of Statewide Importance soils. These designations, however, do not necessarily mean that the land is being used for agricultural purposes. There is no known Unique Farmland along the pipeline routes.

### Line 225 Pipeline Loop

The proposed Line 225 Pipeline Loop and its alternative would be located in the Santa Clarita Valley of Los Angeles County. No cultivated agricultural lands are associated with the Line 225 Pipeline Loop or its alternative. The Line 225 Pipeline Loop would traverse 3.5 miles (5.6 kilometers [km]) of soils classified as Prime Farmland or Farmland of Statewide Importance, but they currently are not in agricultural use. There is no known Unique Farmland along the pipeline routes.

#### 4.5.1.3 Soil Conditions

The predominant soils beneath the area of the Center Road Pipeline and its alternatives consist of loamy sand and sandy loam. *Loam* refers to soils comprising some mixture of sand, silt, clay, and organic material. The predominant soils beneath the area of the Line 225 Pipeline Loop and its alternative consist of alluvial- and river-transported sediments, sandy loam, loamy sand, loam, and sand. Specific soil types that have been identified along the pipeline routes are listed in Tables 4.5-2 and 4.5-3, and their locations are shown in Figures 4.5-1 and 4.5-2.

**Table 4.5-2 Soil Types Along the Center Road Pipeline Routes and Acres Disturbed**

Miles (km)	Soil Association	Soil Capability/ Grade <sup>a,b</sup>	Farmland Soil Type <sup>c</sup>	Acres (Hectares) (50-foot [15-meter] Right-of-Way)
<b>Proposed Center Road Pipeline<sup>d</sup></b>				
3.66	Camarillo Loam (Cd)	llw-2/100	Statewide Importance	23.2
1.07	Camarillo Loam, Sandy Substratum (Ce)	llw-2/95	Statewide Importance	6.5
3.07	Camarillo Sandy Loam (Cc)	llw-2/100	Statewide Importance	19.0
0.04	Cropley Clay (0-2% Slopes) (CyA)	lls-2/95	Prime	0.2
0.01	Garretson Loam (2-9% Slopes) (GaC)	lle-1/100	Prime	0.1
0.10	Gullied Land (GxG)	n/a	Other	0.9
2.93	Hueneme Loamy Sand, Loamy Substratum (Hm)	llw-2/90	Prime	4.0
0.66	Hueneme Sandy Loam (Hn)	llw-2/95	Prime	17.8

**Table 4.5-2 Soil Types Along the Center Road Pipeline Routes and Acres Disturbed**

<b>Miles (km)</b>	<b>Soil Association</b>	<b>Soil Capability/ Grade<sup>a,b</sup></b>	<b>Farmland Soil Type<sup>c</sup></b>	<b>Acres (Hectares) (50-foot [15-meter] Right-of-Way)</b>
1.36	Pacheco Silty Clay Loam (Pa)	IIw-2/95	Statewide Importance	8.2
0.51	Rincon Silty Clay Loam (2-9% Slopes) (RcC)	Ile-3/95	Prime	3.7
0.11	Sorrento Loam (2-9% Slopes) (SwC)	Ile-1/90	Statewide Importance	0.1
0.05	Zamora Loam (2-9% Slopes) (ZmC)	Ile-1/95	Statewide importance	0.3
0.79	Huerhero very fine sandy loam 0 to 5% slopes (HuB)	IIle-3	Other	5.35
0.23	Huerhero very fine sandy loam, 9 to 15% slopes (HuD2)	IVe-3	Other	1.42
<b>Total Proposed Center Road Pipeline</b>			<b>Statewide Importance</b>	<b>57.2</b>
<b>Total Proposed Center Road Pipeline</b>			<b>Prime</b>	<b>21.8</b>
<b>Center Road Pipeline Alternative 1</b>				
1.53 (2.5)	Anacapa Sandy Loam (0-2 Percent Slopes) (AcA)	Ils-4/1	Prime	9.3 (3.76)
0.62 (1.0)	Anacapa Sandy Loam (2-9 Percent Slopes) (AcC)	Ile-1/1	Prime	3.8 (1.54)
1.69 (2.7)	Camarillo Loam (Cd)	IIw-2/2	Statewide Importance	10.2 (4.1)
0.4 (0.64)	Camarillo Loam, Sandy Substratum (Ce)	IIw-2/2	Statewide Importance	2.4 (0.97)
1.27 (2.0)	Camarillo Sandy Loam (Cc)	IIw-2/2	Statewide Importance	7.7 (3.12)
0.2 (0.32)	Cropley Clay (0-2 Percent Slopes) (CyA)	Ils-5/3	Prime	1.2 (0.49)
0.2 (0.32)	Garretson Loam (2-9 Percent Slopes) (GaC)	Ile-1/1	Prime	1.2 (0.49)
0.58 (0.93)	Gullied Land (GxG)	NA	Other	3.5 (1.42)
0.15 (0.24)	Hueneme Loamy Sand, Loamy Substrate (Hm)	IIw-1/3	Prime	0.9 (0.36)
3.78 (6.1)	Hueneme Sandy Loam (Hn)	IIw-2/2	Prime	22.9 (9.3)
0.95 (1.53)	Metz Loamy Sand (0-2 Percent Slopes) (Mea)	Ils-4/2	Prime	5.8 (2.35)
0.8 (1.29)	Pacheco Silty Clay Loam (Pa)	IIw-2/2	Statewide Importance	4.8 (1.94)
1.88 (3.0)	Pico Sandy Loam (0-2 Percent Slopes) (PcA)	Ils-4/1	Prime	11.4 (4.6)
0.39 (0.63)	Pico Sandy Loam (2-9 Percent Slopes) (PcC)	Ile-1/2	Prime	2.4 (0.97)
0.23 (0.37)	Rincon Silty Clay Loam (2-9 Percent Slopes) (RcC)	Ile-3/3	Prime	1.4 (0.57)

**Table 4.5-2 Soil Types Along the Center Road Pipeline Routes and Acres Disturbed**

<b>Miles (km)</b>	<b>Soil Association</b>	<b>Soil Capability/ Grade<sup>a,b</sup></b>	<b>Farmland Soil Type<sup>c</sup></b>	<b>Acres (Hectares) (50-foot [15-meter] Right-of-Way)</b>
0.13 (0.21)	Sorrento Loam (2-9 Percent Slopes) (SwC)	Ile-1/1	Statewide Importance	0.8 (0.32)
0.2 (0.32)	Zamora Loam (2-9 Percent Slopes) (ZmC)	Ile-1/1	Statewide Importance	1.2 (0.49)
<b>Total Center Road Pipeline Alternative 1</b>			<b>Statewide Importance</b>	<b>27.2 (11.0)</b>
<b>Total Center Road Pipeline Alternative 1</b>			<b>Prime</b>	<b>60.2 (24.4)</b>
<b>Center Road Pipeline Alternative 2</b>				
0.12 (0.19)	Anacapa Sandy Loam (2-9 Percent Slopes) (AcC)	Ile-1/1	Prime	0.7 (0.28)
3.84 (6.2)	Camarillo Loam (Cd)	Ilw-2/2	Statewide Importance	23.3 (9.4)
1.46 (2.3)	Camarillo Loam, Sandy Substratum (Ce)	Ilw-2/2	Statewide Importance	8.8 (3.56)
0.97 (1.56)	Camarillo Sandy Loam (Cc)	Ilw-2/2	Statewide Importance	5.9 (2.39)
0.2 (0.32)	Cropley Clay (0-2 Percent Slopes) (CyA)	Ils-2/3	Prime	1.2 (0.49)
0.2 (0.32)	Garretson Loam (2-9 Percent Slopes) (GaC)	Ile-1/1	Prime	1.2 (0.49)
0.61 (0.98)	Gullied Land (GxG)	NA	Other	3.7 (1.5)
0.57 (0.92)	Hueneme Loamy Sand, Loamy Substrate (Hm)	Ilw-2/3	Prime	3.5 (1.42)
2.83 (4.6)	Hueneme Sandy Loam (Hn)	Ilw-2/2	Prime	17.2 (7.0)
2.16 (3.5)	Pacheco Silty Clay Loam (Pa)	Ilw-2/2	Statewide Importance	13.1 (5.3)
0.23 (0.37)	Rincon Silty Clay Loam (2-9 Percent Slopes) (RcC)	Ile-3/3	Prime	1.4 (0.57)
0.11 (0.18)	Sorrento Loam (2-9 Percent Slopes) (SwC)	Ile-1/1	Statewide Importance	0.7 (0.28)
0.2 (0.32)	Zamora Loam (2-9 Percent Slopes) (ZmC)	Ile-1/1	Statewide Importance	1.2 (0.49)
<b>Total Center Road Pipeline Alternative 2</b>			<b>Statewide Importance</b>	<b>52.3 (21.2)</b>
<b>Total Center Road Pipeline Alternative 2</b>			<b>Prime</b>	<b>25.2 (10.2)</b>
<b>Center Road Pipeline Alternative 3</b>				
0.1 (0.16)	Anacapa Sandy Loam (2-9 Percent Slopes) (AcC)	Ile-1/1	Prime	0.7 (0.28)
3.8 (6.1)	Camarillo Loam (Cd)	Ilw-2/2	Statewide Importance	23.1 (9.3)
1.1 (1.8)	Camarillo Loam, Sandy Substratum (Ce)	Ilw-2/2	Statewide Importance	6.5 (2.63)

**Table 4.5-2 Soil Types Along the Center Road Pipeline Routes and Acres Disturbed**

<b>Miles (km)</b>	<b>Soil Association</b>	<b>Soil Capability/ Grade<sup>a,b</sup></b>	<b>Farmland Soil Type<sup>c</sup></b>	<b>Acres (Hectares) (50-foot [15-meter] Right-of-Way)</b>
1.4 (2.3)	Camarillo Sandy Loam (Cc)	llw-2/2	Statewide Importance	8.4 (3.4)
0.2 (0.32)	Cropley Clay (0-2 Percent Slopes) (CyA)	lls-2/3	Prime	1.2 (0.49)
0.2 (0.32)	Garretson Loam (2-9 Percent Slopes) (GaC)	lle-1/1	Prime	1.2 (0.49)
0.6 (0.97)	Gullied Land (GxG)	NA	Other	3.8 (1.54)
0.7 (1.13)	Hueneme Loamy Sand, Loamy Substratum (Hm)	llw-2/3	Prime	4.0 (1.62)
2.7 (4.3)	Hueneme Sandy Loam (Hn)	llw-2/2	Prime	16.5 (6.7)
1.4 (2.3)	Pacheco Silty Clay Loam (Pa)	llw-2/2	Statewide Importance	8.2 (3.32)
0.2 (0.32)	Rincon Silty Clay Loam (2-9 Percent Slopes) (RcC)	lle-3/3	Prime	1.4 (0.57)
0.1 (0.16)	Sorrento Loam (2-9 Percent Slopes) (SwC)	lle-1/1	Statewide Importance	0.1 (0.04)
0.2 (0.32)	Zamora Loam (2-9 Percent Slopes) (ZmC)	lle-1/1	Statewide Importance	1.2 (0.49)
<b>Total Center Road Pipeline Alternative 3</b>			<b>Statewide Importance</b>	<b>47.6 (19.3)</b>
<b>Total Center Road Pipeline Alternative 3</b>			<b>Prime</b>	<b>25.0 (10.1)</b>

Source: U.S. Department of Agriculture 1970a.

Notes:

<sup>a</sup> Soil capability designations:

ll Soils with moderate limitations that reduce the choice of plants or that require moderate conservation practices.

e Limitation due to erosion unless close-growing plant cover is maintained.

w Water in or on the soil interferes with plant growth or cultivation (corrected by artificial drainage).

s Soil is limited mainly because it is shallow, droughty, or stony.

<sup>b</sup> Storie Index Rating System grades range from 1 to 6, with grade 1 soils having few or no limitations that restrict use for crops and grade 6 having soils that are not suited for farming:

1 Potential or actual erosion hazard.

2 Poor drainage or overflow hazard.

3 Slow or very slow permeability in subsoil or substratum.

4 Coarse or gravelly texture.

5 Fine or very fine texture.

<sup>c</sup> California Department of Conservation 1998.

<sup>d</sup> There would be a 50-foot construction ROW from milepost (MP) 0 to MP 12.1 of this route. The ROW would vary between 50 and 100 feet along portions of the pipeline from MP 12.1 to 14.7 due to the topography of the area.

**Table 4.5-3 Soil Types Along the Line 225 Pipeline Loop Routes and Acres Disturbed**

<b>Miles (km)</b>	<b>Soil Association</b>	<b>Soil Capability/ Grade<sup>a,b</sup></b>	<b>Farmland Type<sup>c</sup></b>	<b>Acres (Hectares) (50-foot [15-meter] Right-of-Way)</b>
<b>Line 225 Pipeline Loop</b>				
0.13 (0.21)	Castaic-Balcolm Silty Clay Loams (30-50 Percent Slopes, Eroded) (CmF2)	Vle-1/1	Other	0.8 (0.32)
1.61 (2.6)	Hanford Sandy Loam (0-2 Percent Slopes) (HcA)	IVec-1/1	Prime	9.8 (3.97)
0.32 (0.51)	Hanford Sandy Loam (2-9 Percent Slopes) (HcC)	IVec-1/2	Prime	1.9 (0.77)
0.08 (0.13)	Metz Loamy Sand (0-2 Percent Slopes) (MfA)	Ils-4 <sup>d</sup> /1	Prime	0.5 (0.2)
0.05 (0.08)	Metz Loamy Sand (2-5 Percent Slopes) (MfC)	Ils-4 <sup>d</sup> /1	Other	0.3 (0.12)
0.63 (1.01)	Mocho Sandy Loam (0-2 Percent Slopes) (MoA)	I-1 <sup>d</sup> /1	Prime	3.8 (1.54)
0.37 (0.6)	Ojai Loam (15-30 Percent Slopes) (OgE)	Vle-1/3	Other	2.2 (0.89)
0.66 (1.06)	Ojai Loam (2-9 Percent Slopes) (OgC)	IIle-1 <sup>d</sup> /3	Prime	4.0 (1.62)
0.86 (1.38)	Ojai Loam (30-50 Percent Slopes) (OgF)	VIIle-1/5	Other	5.2 (2.1)
0.07 (0.11)	Riverwash (Rg)	VIIIw-4/6	Other	0.4 (0.16)
0.92 (1.48)	Sandy Alluvial Land (Sa)	VIIw-4/6	Other	5.6 (2.27)
0.79 (1.27)	Sorrento Loam (0-2 Percent Slopes) (SsA)	I-1 <sup>d</sup> /1	Prime	4.8 (1.94)
0.87 (1.4)	Yolo Loam (0-2 Percent Slopes) (YoA)	I-1 <sup>d</sup> /1	Prime	5.3 (2.14)
<b>Total</b>			<b>Prime</b>	<b>30.1 (12.2)</b>
0.91 (1.46)	Sorrento Loam (0-2 Percent Slopes) (SsA)	I-1 <sup>d</sup> /1	Prime	5.5 (2.23)
0.02 (0.03)	Mocho Loam (0-2 Percent Slopes) (MpA)	I-1 <sup>d</sup> /1	Prime	0.1 (0.04)
0.06 (0.1)	Mocho Sandy Loam (0-2 Percent Slopes) (MoA)	I-1 <sup>d</sup> /1	Prime	0.4 (0.16)
0.06 (0.1)	Riverwash (Rg)	VIIIe-16	Other	0.4 (0.16)

**Table 4.5-3 Soil Types Along the Line 225 Pipeline Loop Routes and Acres Disturbed**

<b>Miles (km)</b>	<b>Soil Association</b>	<b>Soil Capability/ Grade<sup>a,b</sup></b>	<b>Farmland Type<sup>c</sup></b>	<b>Acres (Hectares) (50-foot [15-meter] Right-of-Way)</b>
0.11 (0.18)	Sandy Alluvial Land (Sa)	VIIw-4/6	Other	0.7 (0.28)
0.12 (0.19)	Terrace Escarpments (TsF)	VIIe-1/6	Other	0.7 (0.28)
0.21 (0.34)	Zamora Loam (2-9 Percent Slopes) (ZaC)	Ile-1 <sup>d</sup> /1	Prime	1.3 (0.53)
<b>Total</b>			<b>Prime</b>	<b>7.3 (2.95)</b>

Source: U.S. Department of Agriculture 1970b.

Notes:

<sup>a</sup> Soil Capability Class Designations:

- II Soils with moderate limitations that reduce the choice of plants or that require moderate conservation practices.
- III Soils with severe limitations that reduce the choice of plants, require special conservation practices, or both.
- VIII Soils and landforms with limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply.
- c Limitation is climate that is too cold or too dry.
- e Limitation due to erosion unless close-growing plant cover is maintained.
- w Water in or on the soil interferes with plant growth or cultivation (corrected by artificial drainage).
- NA Not applicable.

<sup>b</sup> Soil Grades - Grades range from 1 to 6, with Grade 1 soils having few or no limitations that restrict use for crops and Grade 6 soils that are not suited for farming.

- 1 Potential or actual erosion hazard.
- 2 Poor drainage or overflow hazard.
- 3 Slow or very slow permeability in subsoil or substratum.
- 4 Coarse or gravelly texture.
- 5 Fine or very fine texture.

<sup>c</sup> California Department of Conservation 1995.

<sup>d</sup> Capability classes are provided only for irrigated soils for these soils classifications. These soils are presumed to be not irrigated.

1 The USDA Natural Resources Conservation Service (NRCS) uses two systems to  
2 determine a soil's agricultural productivity: the Soil Capability Classification System and  
3 the Storie Index Rating System. The Soil Capability Classification System considers  
4 soil limitations and soil response to treatment. Capability classes range from Class I  
5 soils, which have few limitations for agriculture, to Class VIII soils, which are unsuitable  
6 for agriculture. The Storie Index Rating System ranks soil characteristics according to  
7 their suitability for agriculture from Grade 1 soils (80 to 100 rating), which have few or  
8 no limitations for agricultural production, to Grade 6 soils (a rating of less than 10),  
9 which are not suitable for agriculture.



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**Figure 4.5-1    Soils in the Project Vicinity (Ventura County)**

Figure 4.5-1 color page 2 of 2

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**Figure 4.5-2    Soils in the Project Vicinity (Los Angeles County)**

Figure 4.5-2 (color) page 2 of 2

## 4.5.2 Regulatory Setting

Federal and State regulations applicable to agricultural resources include the Farmland Protection Policy Act, the California Land Conservation (Williamson) Act, and the California Department of Conservation (CDOC) Farmland Mapping and Monitoring Program (FMMP). The CDOC Farmland Mapping and Monitoring Program identifies and designates lands according to categories defined in the Farmland Protection Policy Act (7 U.S.C. 4201, et seq.). Under the Williamson Act, a landowner enters into a contract, agreeing to protect the land's open space or agricultural values in order to receive reduced property taxes. Williamson Act lands are present in Ventura County, but not in Los Angeles County.

The major Federal, State, and local laws and regulations pertaining to agriculture and soils are summarized in Table 4.5-4.

**Table 4.5-4 Major Laws, Regulatory Requirements, and Plans for Agriculture and Soils**

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
<b>Federal</b>	
Farmland Protection Policy Act (7 United States Code [U.S.C.]§ 4201 et seq.) <i>- Natural Resources Conservation Service of the Department of the Interior</i>	<ul style="list-style-type: none"> <li>The FPPA is intended to minimize the impact that Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The Act requires that before taking or approving any action that would result in conversion of farmland as defined in the Act, the agency shall examine the effects of the action, and if there are adverse effects, consider alternatives to lessen them. It ensures that—to the extent possible—Federal programs are administered to be compatible with state and local units of government and private programs and policies, to protect farmland. The FPPA does not authorize the Federal government to regulate the use of private or non-Federal land or in any way to affect the property rights of owners.</li> <li>For the purpose of the FPPA, “Farmland” includes Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forestland, pastureland, cropland, or other land, but not water or urban built-up land.  <b>Prime Farmland.</b> Land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been used for the production of irrigated crops at some time during the two update cycles (a cycle is equivalent to two years) before the mapping date of 2002 (or since 1998).  <b>Farmland of Statewide Importance.</b> Land similar to Prime Farmland but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. The land must have been used for the production of irrigated crops at some time during the two update cycles before the mapping date (or since 1998).  <b>Unique Farmland.</b> Land of lesser quality soils used for the production of the State’s leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards, as found in some climate zones in California. The land must have been cultivated at some time during the two update cycles before the mapping date (or since 1998).</li> </ul>

**Table 4.5-4 Major Laws, Regulatory Requirements, and Plans for Agriculture and Soils**

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
	<p><b>Farmland of Local Importance.</b> Farmland of local importance is land of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee. Farmland of local importance in Los Angeles County includes lands that do not qualify for Prime, Statewide, or Unique designations but are currently irrigated crops or pasture or non-irrigated crops; lands that would meet the Prime or Statewide designation and that have been improved for irrigation but are now idle; and lands that currently support confined livestock, poultry operations, and aquaculture.</p> <ul style="list-style-type: none"> <li>Requires the completion of Form NRCS-APC-106.</li> </ul>
<b>State</b>	
<p>California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) - CDOC</p>	<ul style="list-style-type: none"> <li>Using Soil Conservation Service soil classifications and other information, CDOC develops "Important Farmland Maps." The purpose of the CDOC's FMMP is to provide land use conversion information for decision makers to use in their planning for the present and future of California's agricultural land resources. Land not recently farmed does not show up on Important Farmland maps. Before removing unfarmed land from the maps, CDOC waits two mapping cycles (four years). The Important Farmland Maps and the advisory guidelines for the FMMP identify five agriculture-related categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land.</li> </ul>
<p>California Land Conservation Act of 1965 (Williamson Act) - California Department of Conservation Division of Land Resource Protection</p>	<ul style="list-style-type: none"> <li>The Williamson Act creates an arrangement whereby private landowners contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. The vehicle for these agreements is a rolling term 10-year contract called a Land Conservation Contract. The contract term is automatically renewed for one additional year each year thereafter unless the landowner or the County files a notice of nonrenewal. In return for the voluntary restriction, contracted parcels are assessed for property tax purposes at a rate consistent with their actual (agricultural) use, rather than potential market value.</li> </ul>
<p>California Coastal Commission (CCC), California Coastal Act (CCA) including § 30241 through § 30243 - Ventura County/City of Oxnard</p>	<ul style="list-style-type: none"> <li>Establishes a coastal management program containing a comprehensive set of policies and requiring the establishment of a local coastal program within each coastal jurisdiction.</li> <li>Provides a framework for the protection of coastal lands and the orderly management of coastal development.</li> <li>Implemented at the local level through local coastal programs.</li> <li>Ensures that ultimate control of the use of coastal areas is retained by the state.</li> <li>For agricultural lands within the coastal zone, Coastal Act § 30241 requires prime agricultural land to be maintained in agricultural production; § 30242 prevents the conversion of agricultural uses to non-agricultural uses and § 30243 protects long-term productivity of soils.</li> </ul>

**Table 4.5-4 Major Laws, Regulatory Requirements, and Plans for Agriculture and Soils**

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
<b>Local</b>	
Ventura County and City of Oxnard Save Our Agricultural Resources (SOAR) Ordinances <i>- Ventura County/City of Oxnard</i>	<ul style="list-style-type: none"> <li>SOAR ordinances are based on the General Plan of the jurisdiction to which they apply and are local land use regulations that have binding legal authority. SOAR places restrictions on the expansion of a City Urban Restriction Boundary (CURB) or restricts the conversion of farmland and open-space lands to urban uses. However, SOAR does not provide permanent protection for open space or farmland, does not acquire parkland or provide recreation facilities, and does not limit the types of uses permitted in agricultural, open-space, or rural zones. The SOAR ordinances, in most cases, will “sunset” by 2020 or 2030.</li> </ul>
City of Oxnard/Ventura County Local Area Formation Commission (LAFCO) <i>- City of Oxnard/Ventura County</i>	<ul style="list-style-type: none"> <li>The Ventura LAFCO considers General Plan consistency, including SOAR ordinances and CURB lines, when making decisions regarding city annexations and sphere of influence amendments. Even though the LAFCO is not bound by SOAR ordinances or CURB lines, because they are local land use regulations tied to local agricultural and open-space General Plan designations and/or the ability to extend services, the policy of the Ventura LAFCO is to not allow city annexations or sphere of influence amendments into areas covered by a SOAR ordinance or outside the CURB line of a city. Thus, if a SOAR ordinance requires voter approval to convert land designated as agricultural or open space on a General Plan to another land use, or voter approval to extend city services, the Ventura LAFCO requires that the voters approve such a change before LAFCO action on any proposal to amend a city’s sphere of influence or that involves annexation to a city.</li> </ul>

### 1    **4.5.3 Significance Criteria**

2    Impacts on agricultural resources are considered significant if the Project construction  
 3    or operation would result in any of the following adverse effects:

- 4        • Convert Prime Farmland or Farmland of Statewide Importance designated under  
 5        the Farmland Protection Policy Act (FPPA) and the Farmland Mapping and  
 6        Monitoring Program of the California Resources Agency to non-agricultural uses;
- 7        • Conflict with existing zoning for agricultural use or a Williamson Act contract;
- 8        • Cause the permanent loss of agricultural soils that exceed Ventura County  
 9        criteria (Prime/Statewide 5 to 20 or more acres (2.02 to 8.1 ha) depending on  
 10       General Plan land use designation);
- 11       • Cause the cumulative loss of agricultural soils if there is a loss of 1 acre (0.4 ha)  
 12       of Prime/Statewide or 2 acres (0.8.1 ha) of Unique Farmland in Ventura County;
- 13       • Cause substantial soil erosion or the loss of topsoil;
- 14       • Impair the productivity of adjacent agricultural areas;
- 15       • Substantially increase pests and/or diseases in nearby agricultural areas; or

- Change the existing environment, which, because of location or nature, could result in conversion of farmland to non-agricultural use.

The following significance criteria would not be applicable to the proposed Project and are not discussed further in the analysis:

- The Project would not pose substantial land use incompatibilities with adjacent property currently in or suitable for agricultural production. The installation of a pipeline would not prevent agricultural production; however, it would prohibit trees within the permanent 50-foot maximum ROW. Therefore, the presence of a natural gas transmission would not, in and of itself, change the existing environment or land use compatibility such that farmland would have to be converted to non-agricultural uses.
- The Project would not adversely affect the quantity or quality of water used for agricultural production, or otherwise reduce water available for agricultural uses.

#### 4.5.4 Impact Analysis and Mitigation

This section addresses impacts associated with the loss of agricultural land and the loss of productivity of agricultural lands due to Project activities. Other potential impacts that could affect agriculture, such as erosion, soil contamination, and introduction of noxious weeds, are addressed in Sections 4.18, "Water Quality and Sediments"; 4.12, "Hazard Materials"; and 4.8, "Terrestrial Biology," respectively. Land use incompatibilities are discussed in Section 4.13, "Land Use." This section describes the impacts on agriculture and soil associated with construction and operation of the proposed Project. Applicant-proposed measures (AM) and agency-recommended mitigation measures (MM) are defined in Section 4.1.5, "Applicant Measures and Mitigation Measures."

#### Impact AGR-1: Temporary Loss of Agricultural Land

***Construction activities could temporarily cause a loss of agricultural land, crops, or crop production (Class II).***

The Prime Farmland soils and Farmland of State Importance soils that the Center Road Pipeline and its alternatives would pass through are identified in Table 4.5-5.

Contractors to the Applicant or its designated representative, Southern California Gas Company (SoCalGas), would install the pipeline. SoCalGas contractors typically use the following procedures when installing a pipeline in agricultural lands. A Temporary Construction Easement (TCE) would be acquired to secure adequate workspace. For 30- to 36-inch diameter pipe, a 75- to 80-foot wide work strip typically would be required for the TCE. Once the construction schedule identified when agricultural field crossings would occur, SoCalGas typically would engage in preconstruction discussions with the farmer/landowner to identify opportunities to minimize impacts on crops, planting, and harvesting. In some cases, however, the impacts could not be minimized (Boven 2005). The procedures noted below would generally be followed when installing the pipelines in agricultural lands.



**Table 4.5-5 Prime Farmland Soils and Farmland Soils of Statewide Importance Temporarily Disturbed and/or Permanently Converted During Construction and Operations**

	Prime Farmland Soils (acres/hectares)		Farmland Soils of Statewide Importance (acres/hectares)		Total Agricultural Soil (acres/hectares)	
	Disturbed	Converted <sup>a</sup>	Disturbed	Converted <sup>a</sup>	Disturbed	Converted <sup>a</sup>
Proposed Center Road Pipeline Route	21.8/8.82	<1/<0.4	57.2/23.1	0/0	90.8/36.7	<1/<0.4
Center Road Pipeline Alternative 1	60.2/24.4	<1/<0.4	27.2/11.0	0/0	87.4/35.4	<1/<0.4
Center Road Pipeline Alternative 2	25.1/10.2	<1/<0.4	52.3/21.2	0/0	77.4/31.3	<1/<0.4
Center Road Pipeline Alternative 3	25.0/10.1	<1/<0.4	47.6/19.3	0/0	72.6/29.4	<1/<0.4
Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline Alternative	61.6/24.9	<1/<0.4	4.8/1.94	0/0	73.5/29.7	<1/<0.4
Line 225 Pipeline Loop	30.1/12.2	0/0	0/0	0/0	30.1/12.2	0/0
Line 225 Pipeline Loop Alternative	7.3/2.95	0/0	0/0	0/0	7.3/2.95	0/0

Note:

<sup>a</sup> NRCS and Ventura County determination of significant impact is based on the number of acres of Prime Farmland or Farmland of Statewide Importance that is converted from agricultural to non-agricultural uses.

## 1 Preconstruction Planning Measures

- 2 • Schedule construction to begin immediately after harvest or before planting if the
- 3 construction and planting/harvest schedules coincide closely enough to not
- 4 compromise the overall pipeline construction completion schedule.
- 5 • Depending on the crop, coordinate harvest within the TCE workstrip first, thus
- 6 making that area available for construction.
- 7 • Depending on the crop, delay planting of the crop within the TCE workstrip until
- 8 after the construction spread has passed and the ROW is restored. This would
- 9 reduce the farmer's seed/crop and labor costs and would minimize impacts on
- 10 production.

## 11 Impact Minimization Measures During Construction

- 12 • If construction timing cannot be worked out, the TCE would be delineated and
- 13 the farmer could agree to not plant the TCE workstrip or to plant only to the
- 14 boundary of the TCE workstrip. This would reduce the farmer's seed/crop and
- 15 labor costs and limit impacts on production.

- If crops must be removed, the farmer could either remove them or let the pipeline construction contractor remove them.
- Younger tree crops could be removed and boxed for replanting.
- Mature trees would be removed to provide adequate TCE; however, only the minimum amount of mature trees would be removed from the construction ROW.
- Topsoil segregation of the upper 1 to 3 feet of topsoil would help protect soil productivity.

#### **Post-Construction Restoration Measures**

- Segregated topsoil would be replaced.
- Substructures, such as drain tiles, would be protected during construction and replaced if damaged.
- Grade would be restored to match the surrounding field for drainage. Often the farmer will grade or employ a company to perform the precision grading. The pipeline construction contractor would reimburse the farmer for the restoration expenses.
- The farmer would be compensated to replace damaged or removed crops (Boven 2005).

For this Project, construction would occur in an 80-foot (24.4 meter [m]) ROW (30 feet [9.1 m] of which is non-agricultural road shoulder) in agricultural areas. However in areas with steeper topography such as in the area between milepost (MP) 13 and MP 14, the TCE would have to be 100 feet (30.5 m) wide. The TCE would be restored to its original use after construction. In this document, the TCE is assumed to be these widths. Until the detailed engineering design and analysis are conducted, the exact location of the TCE is not known. Row crops or natural vegetation would be allowed to grow within the permanent pipeline ROW.

The Center Road Pipeline would temporarily disturb approximately 47.6 acres (19.3 ha) of Farmland of Statewide Importance and approximately 25 acres (10.1 ha) of Prime Farmland soils. Orchard trees would be removed using a bulldozer. SoCalGas would try to salvage as many orchard trees as possible, especially the small-diameter citrus trees, and replant them. However, no trees would be allowed to grow in the permanent pipeline ROW. The permanent pipeline ROW would vary from 25 feet to 50 feet in width. Approximately 2,399 orchard (avocado and citrus) trees would be removed during the pipeline installation (see Table 4.5-6). This is an overestimation of trees that could be removed because it includes orchard trees on either side of the roadway. Construction would occur only on one side of the roadway. However, since the exact alignment is not known, it is not possible to provide a more accurate estimate of orchard trees that would need to be removed temporarily or permanently.

**Table 4.5-6 Approximate Number of Orchard Trees That Would Be Temporarily/Permanently Removed**

<b>Proposed Center Road Pipeline Route</b>	<b>Center Road Pipeline Route Alternative 1</b>	<b>Center Road Pipeline Route Alternative 2</b>	<b>Center Road Pipeline Route Alternative 3</b>	<b>Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Alternative</b>
2,399	1,666	2,121	2,085	2,098

*Note:* These numbers are very conservative and represent the worst possible impacts on orchard trees. Since the exact location of the pipeline alignment is unknown at this time, these numbers include all possible orchard trees that could be removed on either side of the roadway. Most routes have an 80-foot ROW on either side of the roadway. Certain parts of proposed routes have a 100-foot ROW on either side of the roadway. The actual pipeline route would be on only one side of the road; therefore, the actual number of trees disturbed or removed could be significantly less.

- 1 The Line 225 Pipeline Loop would cross an estimated 30.1 acres (12.2 ha) of Prime
- 2 Farmland soils; however, none of these lands are in agricultural production.
  
- 3 Construction activities would occur over a relatively short period of time (approximately
- 4 nine months); however, agricultural land in the construction ROW would be taken out of
- 5 production for this period and therefore could miss a growing season. Typically, this
- 6 period is two production cycles for the field. For sod farms, this may be a few months.
- 7 For other crops, it could be a year. The Applicant or its designated representative have
- 8 agreed to compensate farmers for their potential losses for fields that are taken out of
- 9 production as a result of construction. The details of the compensation are described in
- 10 AGR AM-1a.
  
- 11 The proposed Center Road Pipeline route would cross approximately 15.6 acres (6.3
- 12 ha) of agricultural lands that are part of the Williamson Act, according to the City of
- 13 Oxnard 2020 General Plan (1990). These lands could not be cultivated during
- 14 construction but would return to agricultural use after completion of construction
- 15 activities; therefore, there would be no significant impact on Williamson Act lands.
- 16 There are no known agricultural lands or Williamson Act lands along the proposed Line
- 17 225 Pipeline Loop; therefore, no agricultural lands would be converted to non-
- 18 agricultural uses (Impact Sciences 2004). No project-related aboveground facilities
- 19 would be constructed on Williamson Act preserved agricultural lands; therefore, no
- 20 Williamson Act lands would be converted from agricultural use.
  
- 21 The presence of a natural gas transmission pipeline has minimal impact on agricultural
- 22 uses on or near the pipeline ROW, except in orchards. High-pressure natural gas
- 23 transmission pipelines are present in Oxnard, with some sections routed through
- 24 existing croplands; for example, the existing high-pressure pipeline routed along Del
- 25 Norte Boulevard extends southward across 5th Street through agricultural lands. The
- 26 proposed new pipelines would be buried to a minimum depth of 36 inches of soil
- 27 covering the top of the piping. Once installed, the only areas taken out of crop
- 28 production would be very small plots where the aboveground pipeline markers would be
- 29 located.

Operation and maintenance of the pipeline, in general, would not involve activities on the surface. If the pipeline needs to be accessed from the surface, the impacts would be similar to those associated with installation of the pipeline, and similar mitigation measures would be necessary.

The Applicant has incorporated the following measures into the proposed Project:

**AM AGR-1a. Compensation for Temporary and Permanent Loss of Agricultural Land, Crop Loss, Future Loss of Production, and Other Negative Impacts.** In compliance with California Government Code § 7267 et seq., the Applicant or its designated representative would make every reasonable effort to acquire easements (temporary and permanent) expeditiously by negotiation. The easement rights would be appraised before the initiation of negotiations, and the property owner, or the property owner's designated representative, would be given an opportunity to accompany the appraiser during the inspection of the property. SoCalGas would establish an amount that it believes to be just compensation for the easement rights, based upon the appraisal. SoCalGas would provide the property owner with a written statement and summary of the basis for the amount it established as just compensation, which amount would not be less than the appraised value of the easement rights. The appraisal process would consider the value of the easement rights being acquired, and where applicable, crop loss, future loss of production, and any other negative impacts that SoCalGas' acquisition and use of the easement areas would have upon agricultural operations.

#### Mitigation Measures for Impact AGR-1: Temporary Loss of Agricultural Land

**MM AGR-1b. Coordinate Pipeline Installation with Farmers.** The Applicant or its designated representative shall let the farmer decide if the farmer will remove seed/crops or whether the Applicant's contractor will remove the seed/crops.

**MM AGR-1c. Minimize Orchard Tree Removal.** Recognizing that no trees can grow on the permanent pipeline, the Applicant or its designated representative shall remove, box, maintain, and replant small orchard trees in the area between the TCE and the permanent ROW. The Applicant or its designated representative shall minimize the number of mature trees removed.

**MM AGR-1d. Post-Construction Restoration Measures.** The Applicant or its designated representative shall protect all substructures, such as drain tiles, during construction and replace any substructures if damaged. The Applicant or its designated representative shall restore the grade of the TCE to match the surrounding field for

1 drainage or compensate the farmer if the farmer chooses to have a  
2 contractor perform precision grading.

3 Although implementation of this Project would cause the temporary loss of agricultural  
4 production along the pipeline corridor, the potential financial effect on farmers would be  
5 minimized through the implementation of AM AGR-1a. In addition, the potential effects  
6 of the Applicant's or its designated representative's use of the TCE would be minimized  
7 through the implementation of MM AGR-1b, -1c, and -1d. These measures would  
8 ensure that the land is restored to its original condition and that crop loss would be  
9 minimized. Farmers would receive compensation for any crop loss. Implementation of  
10 these measures would reduce impacts on agricultural land to below their significance  
11 criteria.

12 **Impact AGR-2: Permanent Conversion of Agricultural Land to Non-Agricultural**  
13 **Use**

14 ***Operational activities could cause a loss of agricultural land, crops, or crop***  
15 ***production. Construction of permanent facilities could cause a permanent loss of***  
16 ***agricultural land, crops, or crop production. Agricultural land that is preserved***  
17 ***under the Williamson Act could be permanently converted from agricultural land***  
18 ***to non-agricultural land. Prime farmland or farmland of Statewide Importance***  
19 ***could be converted to non-agricultural uses (Class I).***

20 The Center Road Valve Station would expand by 4,250 square feet (395 square  
21 meters), or approximately 0.1 acre (0.04 ha), resulting in the permanent removal of  
22 approximately 40 citrus trees. Soils in this area are classified as Prime Farmland. No  
23 Williamson Act lands would be converted, and no agricultural land in the coastal zone  
24 would be permanently converted to non-agricultural uses. Under the Ventura County  
25 guidelines, because the Project would convert less than 1 acre (0.4 ha) of Prime  
26 Farmland soils to non-agricultural use, the impact would be adverse, but less than  
27 significant.

28 The proposed permanent structures on Line Loop 225 would be installed at the existing  
29 valve stations; therefore, there would be no permanent conversion of agricultural land to  
30 non-agricultural uses.

31 The NRCS has evaluated the proposed routes and determined that there would be no  
32 significant impact on agricultural lands under its jurisdiction (Jewett 2004; Nguyen 2004;  
33 James 2005). However, under the CEQA guidelines, any conversion of Prime  
34 Farmland, Unique Farmland, or Farmland of Statewide Importance soils to non-  
35 agricultural use represents a significant impact. The conversion of 0.1 acre of land at  
36 the Center Road Valve Station is a significant impact that cannot be mitigated. This  
37 impact would be a Class I impact.

### Impact AGR-3: Topsoil Loss, Mixing, and/or Compaction

***Construction activities could result in topsoil and subsoil mixing, soil compaction, and/or introduction of weed/invasive species, thereby reducing agricultural productivity (Class II).***

Where construction occurs in agricultural areas, the concentrated movement of construction equipment could result in mixing topsoil with the relatively infertile subsoil, thereby diluting the productivity of the soil. The use of heavy equipment could also result in rutting, which could lead to mixing of topsoil and subsoil, especially in excessively wet conditions. Inadequate compaction of the trench backfill could result in soil subsidence over the pipeline and thereby alter drainage patterns, while severe over-compaction could impede vegetation growth because of restricted movement of air and water into the soil.

Soil compaction is a problem generally associated with fine-texture and/or organic-rich soils with high moisture content. Soils most prone to compaction are generally somewhat poorly drained and often hydric. Compaction can reduce porosity, infiltration, and aeration of the soil. These properties are important for plant health. The most productive part of the soil column is the topsoil or top 5 to 12 inches (0.3 m) of soil. If the topsoil is mixed with subsoil, then its productivity is diminished.

Approximately 90.8 acres (36.7 ha) of agricultural soils would be disturbed by the construction of the Center Road Pipeline, based on an average 80-foot (24.4 m) ROW for most of the route and a 100-foot ROW (30.5-meter) for the last portion of the pipeline route.

Not only could construction activities result in the compaction of soil, but invasive species could be introduced by equipment that is not thoroughly cleaned. Introduction of any plant species other than the one grown by the farmer would cause the farmer additional effort to eradicate it.

Approximately 30.1 acres (12.2 ha) of agricultural soil would be disturbed (based on an average 80-foot [24.4 m] ROW) along the proposed Line 225 Pipeline Loop; however, loss of soil productivity is less of a concern for this route because it would traverse urban, residential, commercial, and industrial lands, and none of the undeveloped areas are agricultural.

The Applicant has incorporated the following measure into the Project:

**AM TerrBio-4a. Weed Management Plan** would apply to this impact (see Section 4.8, "Terrestrial Biology").

### Mitigation Measures for Impact AGR-3: Topsoil Mixing and Compaction

**MM AGR-3a. Topsoil Salvage and Replacement.** The Applicant or its designated representative shall ensure that the upper 12 inches (0.3 m) of topsoil (or less, depending on the existing depth of the topsoil) is salvaged, segregated from the rest of the soil, and replaced on top of the disturbed areas and replaced wherever the pipeline is trenched.

**MM AGR-3b. Landowner Compensation for Soil Productivity Losses.** Prior to construction, the Applicant or its designated representative shall negotiate with landowners regarding measures to ensure that soil productivity is maintained and that the criteria for determining loss of soil productivity and the terms for compensation for such loss are determined.

Implementation of AM TerrBio-4a would ensure that invasive/weed species would not be introduced into the agricultural fields. Topsoil salvage and replacement would ensure that the soil disturbed by the Project would be maintained to ensure its continued agricultural productivity. If soil productivity losses still were to occur, implementation of MM AGR-3b would ensure that farmers would be adequately compensated for their losses. Implementation of these mitigation measures would reduce this potential impact to below its significance criteria.

### **Impact AGR-4: Dust Deposition**

***Dust generated during construction could be deposited on adjacent agricultural lands with planted crops, temporarily reducing productivity (Class II).***

Dust generated during grading and construction activities could adversely impact agricultural production by reducing the ability of plants to photosynthesize. If a plant's ability to photosynthesize is reduced, then it is potentially more susceptible to pest infestation.

### Mitigation Measures for Impact AGR-4: Dust Deposition

**MM AIR-2b. Construction Fugitive Dust Plan** would apply to this impact (see Section 4.6, "Air Quality").

**MM AGR-4a. Dust Suppression Water Quality.** For dust suppression, the Applicant or its designated representative shall use potable water sources or water sources approved for discharge near agricultural uses. Water used on agricultural fields shall not be treated with chemicals such that it could adversely affect agricultural fields.

Implementation of the Construction Fugitive Dust Plan would minimize the generation of fugitive dust; therefore, the potential adverse effects of the presence of fugitive dust on agricultural fields would be minimized. Implementation of MM AGR-4a would ensure

that water applied in the implementation of the Construction Fugitive Dust Plan would not adversely effect agricultural production. With the minimization of fugitive dust generation, the potential effects of dust deposition impacts would be reduced to below significance criteria.

#### **Impact AGR-5: Loss of Tree Rows**

##### ***Loss of tree rows could reduce agricultural productivity (Class II).***

Tree rows provide a windbreak for agricultural fields, decreasing stresses on individual plants and thus allowing them to grow with fewer disturbances. Along the Center Road Pipeline route, approximately 8,372 linear feet of tree rows would potentially be disturbed (see Table 4.5-7). There are no known tree rows along the Line 225 Pipeline Loop.

**Table 4.5-7 Length of Tree Rows Potentially Disturbed during Pipeline Installation**

Pipeline Route	Linear Feet of Tree Row Potentially Disturbed
Center Road Pipeline Proposed Route	6,170
Center Road Pipeline Alternative Route 1	7,022
Center Road Pipeline Alternative Route 2	2,962
Center Road Pipeline Alternative Route 3	13, 691

Source: Entrix 2005.

Note: Trees include eucalyptus, palm, ironwood, and ornamentals but not orchard trees.

#### **Mitigation Measure for Impact AGR-5: Loss of Tree Rows**

**MM TerrBio-2g. Tree Avoidance and Replacement** applies to this impact (see Section 4.8, "Biological Resources – Terrestrial").

Implementation of this mitigation measure would require the Applicant to replace tree rows at ratio of 1:1. Replacement trees would be 15-gallon trees approximately 8 to 10 feet in height. The type of tree planted would be approved by the CDFG and/or the landowner. Therefore, the potential impact of the removal of tree rows would be limited to the period of construction and would be reduced to below its significance criteria in the long-term.

#### **Impact AGR-6: Impacts from a Leak or Fire Associated with the Natural Gas Transmission Line**

##### ***If the natural gas transmission line leaked and/or were ignited, the resulting fire could cause the loss of crops or the contamination of the soil in the vicinity of the leak or fire (Class II).***

A leak or rupture in any natural gas transmission line would require immediate response by fire and police departments and SoCalGas to ensure that the area is secured, i.e., people have been evacuated and potential sources of ignition are kept well away. This could disrupt nearby agricultural activities by preventing access to the fields for a



number of hours. Short-term exposure of nearby crops to a natural gas cloud would not be expected to damage the crops and would be expected to be minimal due to the buoyancy of the gas. Plants in the immediate vicinity of the pipe rupture would be lost.

Should a natural gas cloud be ignited, it could cause secondary fires of dry vegetation and fire and heat damage that, depending on the type and maturity of the nearby crops, could result in localized crop losses. The potential distance from the pipeline for damaging effects on crops would also vary depending on the type and maturity of the crop at the time of the incident: mature or nearly mature fruits or berries would sustain significant damage at radiant heat levels less than 5,000 British thermal units per hour per square foot (Btu/hr-ft<sup>2</sup>) (the level that defines the "potential impact radius" for public safety impacts as described in Title 49 Code of Federal Regulations Part 192, Subpart O). Although not acutely toxic, soot from the burning of any material in the vicinity of the fire could contaminate nearby crops and would likely require destruction of soot-contaminated plants and/or fruit.

With or without ignition of a natural gas cloud, localized but temporary impacts on nearby cropland would occur due to the presence of emergency and repair vehicles and equipment that would respond and excavate and repair the damaged pipeline. The vehicles and emergency equipment used to address the leak may compact the soil surrounding the area. SoCalGas would be responsible for ensuring that the soil would be aerated after the emergency response is completed.

The Applicant has incorporated the following measures into the proposed Project:

**AM PS-3a. More Stringent Pipeline Design** (see Section 4.2, "Public Safety: Hazards and Risk Assessment").

**AM PS-4a. Pipelines to Meet Class 3 Design Criteria** would apply to this impact (see Section 4.2, "Public Safety Hazards and Risk Assessment").

#### Mitigation Measures for Impact AGR-6: Impacts from a Leak or Fire Associated with the Natural Gas Transmission Line

**MM AGR-6a. Restoration After a Natural Gas Transmission Line Accident.** The Applicant or its designated representative shall restore the area that was either contaminated or burned as a result of a breach in the natural gas transmission line.

**MM PS-3c. Areas Subject to Accelerated Corrosion, Cathodic Protection System** (see Section 4.2, "Public Safety Hazards and Risk Assessment").

**MM PS-4b. Pipeline Integrity Management Program** would apply to this impact (see Section 4.2, "Public Safety Hazards and Risk Assessment").

**MM PS-4c. Install Additional Mainline Valves Equipped with Either Remote Valve Controls or Automatic Line Break Controls** (see Section 4.2, "Public Safety Hazards and Risk Assessment").

Implementation of the public safety mitigation measures outlined above would reduce the potential for a leak or fire to occur and would reduce the potential impacts should a leak or fire occur. Implementation of MM AGR-6a would ensure that the area would be restored to its original condition should a leak or fire cause damage or contamination. Impacts of this type would be temporary and the effects could be mitigated to below significance criteria over the long-term.

#### **4.5.5 Alternatives**

##### **4.5.5.1 No Action Alternative**

As explained in greater detail in Section 3.4.1, "No Action Alternative," under the No Action Alternative, MARAD would deny the license for the Cabrillo Port Project and/or the CSLC would deny the application for the proposed lease of State tide and submerged lands for a pipeline right-of-way. The No Action Alternative means that the Project would not go forward and the FSRU, associated subsea pipelines, and onshore pipelines and related facilities would not be installed. Accordingly, none of the potential environmental impacts identified for the construction and operation of the proposed Project would occur.

Since the proposed Project is privately funded, it is unknown whether the Applicant would fund another energy project in California; however, should the No Action Alternative be selected, the energy needs identified in Section 1.2, "Project Purpose, Need and Objectives," would likely be addressed through other means, such as through other LNG or natural gas-related pipeline projects. Such proposed projects may result in potential environmental impacts of the nature and magnitude of the proposed Project as well as impacts particular to their respective configurations and operations; however, such impacts cannot be predicted with any certainty at this time.

##### **4.5.5.2 Alternative DWP – Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline**

Siting of the Project in the Santa Barbara Channel would result in impacts similar to those of the proposed Project, i.e., topsoil mixing and dust deposition. However, there are fewer miles of land in agricultural production (see Table 4.5-8); therefore, fewer acres of land in agricultural production would be disturbed (see Table 4.5-9). The same amount of land would be converted from agricultural land to non-agricultural land as for the proposed Project. Therefore, this alternative would have fewer impacts on agricultural resources than the proposed Project. However, more acres of Prime Farmland soils (61.6 acres [24.9 ha]) would be disturbed, compared with those affected by the proposed Project (21.8 acres [8.8 ha]) (see Table 4.5-9).

**Table 4.5-8 Representative Agriculture Present Along the Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline**

<b>Milepost</b>	<b>Representative Agriculture</b>
0-1	Strawberries, Fallow
1-2	Fallow, Sod, Orchard
2-3	Sod, Orchard, Strawberries, Tree Rows, Row Crops
3-4	Row Crops, Fallow, Sod
4-5	NA
5-6	NA
6-7	Strawberries, Row Crops
7-8	Row Crops, Fallow
8-9	Sod, Fallow
9-10	Fallow, Strawberries, Orchard
10-11	Fallow, Orchard
11-12	Fallow, Orchard
12-Center Road Valve Station	Strawberries, Row Crops, Orchard

Source: Ecology and Environment, Inc. 2004.

**Table 4.5-9 Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline Soils**

<b>Miles (km)</b>	<b>Soil Association</b>	<b>Soil Capability/ Grade<sup>a,b</sup></b>	<b>Farmland Soil Type<sup>c</sup></b>	<b>Acres (Hectares) (50-foot [15-meter] Right-of-Way)</b>
3.28 (5.3)	Anacapa Sandy Loam (0-2 Percent Slopes) (AcA)	Ils-4/1	Prime	19.9 (8.1)
0.83 (1.3)	Anacapa Sandy Loam (2-9 Percent Slopes) (AcC)	Ile-1/1	Prime	5.0 (2.02)
0.37 (0.6)	Camarillo Loam (Cd)	Ilw-2/2	Statewide Importance	2.2 (0.89)
0.21 (0.3)	Camarillo Sandy Loam (Cc)	Ilw-2/2	Statewide Importance	1.3 (0.53)
0.68 (1.1)	Coastal Beaches (CnB)	VIIIw-4/NA	Other	4.1 (1.66)
0.18 (0.3)	Cropley Clay (0-2 Percent Slopes) (CyA)	Ils-5/3	Prime	1.1 (0.45)
0.14(0.2)	Garretson Loam (2-9 Percent Slopes) (GaC)	Ile-1/1	Prime	0.8 (0.32)
0.37 (0.6)	Gullied Land (GxG)	VIIIe-1/NA	Other	2.2 (0.89)
0.11 (0.2)	Hueneme Loamy Sand, Loamy Substrate (Hm)	Ilw-2/3	Prime	0.7 (0.28)
0.56 (0.9)	Hueneme Sandy Loam (Hn)	Ilw-2/2	Prime	3.4 (1.38)
0.56 (0.9)	Metz Loamy Sand (0-2 Percent Slopes) (MeA)	IIIs-4/2	Prime	3.4 (1.38)
0.37 (0.6)	Mocho Loam (0-2 Percent Slopes) (MoA)	I-1/1	Prime	2.2 (0.89)

**Table 4.5-9 Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline Soils**

<b>Miles (km)</b>	<b>Soil Association</b>	<b>Soil Capability/ Grade<sup>a,b</sup></b>	<b>Farmland Soil Type<sup>c</sup></b>	<b>Acres (Hectares) (50-foot [15-meter] Right-of-Way)</b>
3.10 (5.0)	Pico Sandy Loam (0-2 Percent Slopes) (PcA)	Ils-4/1	Prime	18.8 (7.6)
0.35 (0.6)	Pico Sandy Loam (2-9 Percent Slopes) (PcC)	Ile-1/2	Prime	2.1 (0.85)
0.37 (0.6)	Rincon Silty Clay Loam (2-9 Percent Slopes) (RcC)	Ile-3/3	Prime	2.2 (0.89)
0.32 (0.5)	Sorrento Loam (0-2 Percent Slopes) (SwA)	I-1/1	Prime	1.9 (0.77)
0.11 (0.2)	Sorrento Loam (2-9 Percent Slopes) (SwC)	Ile-1/1	Statewide Importance	0.7 (0.28)
0.14 (0.2)	Sorrento Silty Clay Loam (0-2 Percent Slopes) (SxA)	I-1/1	Other	0.8 (0.32)
0.11 (0.2)	Zamora Loam (2-9 Percent Slopes) (ZmC)	Ile-1/1	Statewide importance	0.7 (0.28)
		<b>Total</b>	<b>Statewide Importance</b>	<b>4.8 (1.94)</b>
		<b>Total</b>	<b>Prime</b>	<b>61.6 (24.9)</b>

Source: U.S. Department of Agriculture 1970a.

Notes:

<sup>a</sup> Soil Capability Designations:

- i Soils with few limitations that restrict their use.
- ii Soils with moderate limitations that reduce the choice of plants or that require moderate conservation practices.
- iii Soils that have severe limitations that reduce the choice of plants.
- viii Soils and landforms that have limitations that preclude their use for commercial plant production.
- e Limitation due to erosion unless close-growing plant cover is maintained.
- w Water in or on the soil interferes with plant growth or cultivation (corrected by artificial drainage).
- s Soil is limited mainly because it is shallow, droughty, or stony.

<sup>b</sup> Grades range from 1 to 6, with Grade 1 soils having few or no limitations that restrict use for crops and Grade 6 soils that are not suited for farming

- 1 Potential or actual erosion hazard.
- 2 Poor drainage or overflow hazard.
- 3 Slow or very slow permeability in subsoil or substratum.
- 4 Coarse or gravelly texture.
- 5 Fine or very fine texture.

<sup>c</sup> California Department of Conservation 1998.

1 Fewer acres of soils of Statewide Importance (4.8 acres [1.94 ha]) would be disturbed,  
2 compared with the proposed Project (57.2 acres [23.1 ha]). However, like the proposed  
3 route, the Center Road Valve Station would expand by 4,250 square feet (395 square  
4 meters), or approximately 0.1 acre (0.04 ha), resulting in the permanent removal of  
5 approximately 40 citrus trees. Soils in this area are classified as Prime Farmland. The  
6 NRCS has determined that there would be no significant impact on agricultural lands  
7 under its jurisdiction (Jewett 2004). In addition, Ventura County does not consider  
8 conversion of this amount of agricultural land to be significant, but any conversion of

prime farmland to non-agricultural use is considered significant under CEQA criteria. Therefore, this is a Class I impact.

Approximately, 2,098 orchard trees could be removed during the construction of this alternative; however, as discussed before, this is an overly conservative estimate and represents trees within the ROW on either side of the roadway. This is not an estimate of the number of orchard trees that would be permanently removed.

Since the impacts would be of a similar nature as those for the proposed pipeline route, all mitigation measures would be applied to this alternative to ensure that farmers would be adequately compensated for the use of their land and any crop losses. These mitigation measures would ensure that agricultural land would be restored and construction impacts would be reduced to a level below its significance criteria; however, there would be a permanent conversion of agricultural land to non-agricultural use which results in a Class I impact.

#### **4.5.5.3 Alternative Onshore Pipeline Routes**

##### **Center Road Pipeline Alternative 1**

Center Road Pipeline Alternative 1 would cross less active farmland than the proposed Center Road Pipeline. This alternative would adjoin land in agricultural use for 63 percent of its course. As a result, the potential for impacts on agricultural resources would be the lowest under this alternative. Of all the Center Road Pipeline alternatives, Alternative 1 would also cause the least disturbance to soils classified as Farmland of Statewide Importance, affecting 27.2 acres (11 ha). However, Center Road Pipeline Alternative 1 would temporarily disturb the greatest number of acres of soils classified as Prime Farmland, estimated to be approximately 60.2 (24.4 ha).

This route would cross approximately 11 acres (4.5 ha) of land preserved under the Williamson Act (City of Oxnard 1990); however, none of these lands would be permanently converted to non-agricultural lands. There would be no difference between this alternative and the proposed Center Road Pipeline in the amount of prime farmland agricultural soils permanently converted to non-agricultural uses and, like the proposed Center Road Pipeline route, this would represent a Class I impact under the California Environmental Quality Act (CEQA) significance criteria. The NRCS has determined that there would be no significant impact on agricultural lands under their jurisdiction from this alternative (Jewett 2004). In addition, the conversion of this amount of agricultural land under Ventura County significance criteria is considered not significant.

A greater length of tree rows would be temporarily disturbed under this alternative than the proposed Center Road Pipeline. Fewer orchard trees would have to be temporarily or permanently removed under this alternative (see Table 4.5-7 above). Since the impacts would be similar to those for the proposed Center Road Pipeline, all mitigation measures would be applied to this alternative to ensure that farmers would be adequately compensated for the use of their land and any crop losses. These mitigation measures would ensure that agricultural land would be restored, and

1 construction impacts would be reduced to a level below its significance criteria, except  
2 for the permanent conversion of prime farmland agricultural soil which represents an  
3 unmitigatable Class I impact.

#### 4 **Center Road Pipeline Alternative 2**

5 Much of this alternative route is located in agriculturally dominated areas; 89.7 percent  
6 of the land along the route is in agricultural use. As a result, this alternative would have  
7 impacts on agricultural resources similar to those under the Center Road Pipeline.  
8 Center Road Pipeline Alternative 2 would affect approximately 25.2 acres (10.2 ha) of  
9 Prime Farmland soils and approximately 52.3 acres (21.2 ha) of Farmland of Statewide  
10 Importance soils. There would be no difference between this alternative and the  
11 proposed Center Road Pipeline in the amount of prime farmland agricultural soils  
12 permanently converted to non-agricultural uses and like the proposed Center Road  
13 Pipeline route, this would represent a Class I impact under CEQA significance criteria.  
14 However, the NRCS has determined that there would be no significant impact to  
15 agricultural lands under their jurisdiction from this alternative (Jewett 2004). In addition,  
16 the conversion of this amount of agricultural land under Ventura County significance  
17 criteria is not considered significant,

18 The amount of Williamson Act land that would be disturbed by this alternative would be  
19 the same as that of the proposed Center Road Pipeline route, and, like the proposed  
20 route, none of this land would be converted from agricultural use. A shorter length of  
21 tree rows would be temporarily disturbed in this alternative than the proposed route (see  
22 Table 4.5-8 above). Fewer orchard trees would have to be temporarily or permanently  
23 removed under this alternative (see Table 4.5-7 above). Since the impacts would be of  
24 a similar nature as those for the proposed Center Road Pipeline route, all mitigation  
25 measures would be applied to this alternative to ensure that farmers would be  
26 adequately compensated for the use of their land and any crop losses. These  
27 mitigation measures would ensure that agricultural land would be restored and  
28 construction impacts would be reduced to a level below its significance criteria, except  
29 for the permanent conversion of prime farmland agricultural soil which represents an  
30 unmitigatable Class I impact.

#### 31 **Center Road Pipeline Alternative 3**

32 This alternative route is located in agriculturally dominated areas: approximately 90  
33 percent of the land along the route is in agricultural use. This alternative would have  
34 impacts on agricultural resources similar to those under the proposed Center Road  
35 Pipeline because the majority of the route, except for the last 2.1 miles (3.4 km) is  
36 exactly the same and the proposed route. This alternative would affect approximately  
37 25.0 acres (10.1 ha) of Prime Farmland soils and approximately 47.6 acres (19.3 ha) of  
38 Farmland of Statewide Importance soils. There would be no difference between this  
39 alternative and the proposed Center Road Pipeline in the amount of prime farmland  
40 agricultural soils permanently converted to non-agricultural uses and like the proposed  
41 Center Road Pipeline route, this would represent a Class I impact under CEQA  
42 significance criteria. However, the NRCS has determined that there would be no

significant impact to agricultural lands under their jurisdiction from this alternative (Jewett 2004). In addition, the conversion of this amount of agricultural land under Ventura County significance criteria is not considered significant.

The amount of Williamson Act land that would be disturbed by this alternative would be the same as that of the proposed Center Road Pipeline and, like the proposed route, none of this land would be converted from agricultural use. A shorter length of tree rows would be temporarily disturbed in this alternative than the proposed route (see Table 4.5-7 above). Fewer orchard trees would have to be temporarily or permanently removed under this alternative (see Table 4.5-6 above). Since the impacts would be similar to those for the proposed pipeline route, all mitigation measures would be applied to this alternative to ensure that farmers would be adequately compensated for the use of their land and any crop losses. These mitigation measures would ensure that agricultural land is restored, and construction impacts would be reduced to a level below significance criteria in the long-term, except for the permanent conversion of prime farmland agricultural soil, which represents an unmitigatable Class I impact.

#### **Line 225 Pipeline Loop Alternative**

This alternative would cross an estimated 7.3 acres (2.95 ha) of Prime Farmland soils and slightly in excess of 1 acre of Farmland of Statewide Importance soils. None of these lands are in agricultural use; therefore, there would be no agricultural lands taken out of production. The total acres of Prime Farmland and Farmland of Statewide Importance that would be disturbed cannot be compared with the number of acres disturbed under the proposed Line 225 Pipeline Loop because this alternative would cover only a part of the route. For the equivalent parts of the pipeline routes, this alternative would disturb slightly more Prime Farmland soils than the proposed route. The NRCS has determined that there would be no significant impact on agricultural lands under their jurisdiction from this alternative (Nguyen 2004). There would be no impacts on agricultural lands and although there would be similar impacts on soils classified as Prime Farmland or Farmland of Statewide Importance, the relevant mitigation measures would be those that are applicable to terrestrial biological resources such as MM TerrBio-2g, and AM TerrBio-4a. These measures would ensure that soil is not lost due to erosion, as few trees as possible are removed, removed trees are replaced, and weeds are not introduced into the area.

#### **4.5.5.4 Alternative Shore Crossing/Pipeline Route**

##### **Arnold Road Shore Crossing/Arnold Road Pipeline Alternative**

This alternative would use horizontal directional boring (HDB) to transit to the beach and beach dunes. The pipeline would be trenched through approximately 1.5 miles (2.4 km) of Prime Farmland and Farmland of Statewide Importance soils to Hueneme Road. A total of 4.1 acres (1.66 ha) of Farmland of Statewide Importance soils would be disturbed, along with 3.1 acres (1.25 ha) of Prime Farmland soils (see Table 4.5-10). Most of the route is lined with agricultural fields. The comparable portion of the proposed route transits through an equivalent distance of soils of Farmland of State

1 Importance; therefore, the impacts on agricultural resources and soils would be  
 2 equivalent. No known orchard trees border this route. Since the impacts of the pipeline  
 3 installation would be similar to those for the proposed pipeline route, all mitigation  
 4 measures, except those for trees, would be applied to this alternative to ensure that  
 5 farmers would be adequately compensated for the use of their land and any crop  
 6 losses. These mitigation measures would ensure that agricultural land is restored and  
 7 construction impacts are minimized. Thus, impacts on agriculture and soils would be  
 8 reduced to below their significance criteria.

**Table 4.5-10 Soil Association – Arnold Road Shore Crossing/Arnold Road Pipeline**

Miles (km)	Soil Association	Soil Capability/ Grade <sup>a,b</sup>	Farmland Soil Type <sup>c</sup>	Acres (Hectares) (50-foot [15-meter] Right-of-Way)
Disturbed during pipeline construction				
0.04 (0.1)	Coastal Beach	VIIIw/NA	Other	0.2 (0.1)
0.68 (1.1)	Camarillo Loam (Cd)	IIw-2/2	Statewide Importance	4.1 (1.66)
0.51 (0.8)	Hueneme Sandy Loam (Hn)	IIw-2/2	Prime	3.1 (1.25)
0.40(0.6)	Tidal Flats (Ts)	VIIIw-6/NA	Other	2.4(1.0)
Disturbed during metering station construction				
	Camarillo Loam (Cd)	IIw-2/2	Statewide Importance	3.7(1.5)
Permanent conversion				
	Camarillo Loam (Cd)	IIw-2/2	Statewide Importance	0.9 (0.4)

Source: U.S. Department of Agriculture 1970a.

Notes:

<sup>a</sup> Soil Capability designations:

II Soils with moderate limitations that reduce the choice of plants or that require moderate conservation practices.

W Water in or on the soil interferes with plant growth or cultivation (corrected by artificial drainage).

2 Poor drainage or overflow hazard.

<sup>b</sup> Grades range from 1 to 6, with Grade 1 soils having few or no limitations that restrict use for crops and Grade 6 soils that are not suited for farming.

1 Potential or actual erosion hazard.

2 Poor drainage or overflow hazard.

3 Slow or very slow permeability in subsoil or substratum.

4 Coarse or gravelly texture.

5 Fine or very fine texture.

<sup>c</sup> California Department of Conservation 1998.



**Impact AGR-7 Alt: Potential for Use of Agricultural Land for Staging Areas.**

***Under the Arnold Road Shore Crossing/Arnold Road Pipeline Alternative, construction activities associated with staging areas could temporarily cause a loss of agricultural land, crops, or crop production. Agricultural land that is preserved under the Williamson Act could be temporarily converted from agricultural land to non-agricultural land. Prime Farmland or Farmland of Statewide Importance soils would temporarily be converted to non-agricultural uses (Class II).***

For construction of this alternative, a 400-foot (122 meters) by 400-foot (122 meters) staging area would be needed. The proposed construction footprint would be a 3.7-acre (1.5 ha) area adjacent to Arnold Road approximately 0.5 miles from the HDB entry point (Entrix 2005). The location of the construction footprint would be on agricultural lands; therefore temporary disturbance of agricultural fields would occur.

Implementation of MM AGR-1b, MM AGR-1c, and MM AGR-1d would reduce the impact on farmers if they choose to allow their land to be used as a construction area. Through these mitigation measures and AM Agr-1a, the farmer would be compensated for the use of the land and the land would be subsequently restored after construction is completed.

**Impact AGR-8 Alt: Permanent Conversion of Agricultural Land to Non-Agricultural Use.**

***Under the Arnold Road Shore Crossing/Arnold Road Pipeline Alternative, construction of permanent facilities could cause a permanent loss of agricultural land, crops, or crop production. Agricultural land that is preserved under the Williamson Act could be permanently converted from agricultural land to non-agricultural land. The pipeline corridor could convert Prime Farmland and Farmland of Statewide Importance soils to non-agricultural uses (Class I).***

A metering station would be constructed on 200-foot (61 m) by 200-foot (61 m) area on agricultural field adjacent to Arnold Road for this alternative (Entrix 2005). The entire area needed for construction would be 40,000 square feet (0.9 acre; 0.4 ha). The proposed location is on agricultural lands that have soils that are classified as Farmland of Statewide Importance, but they are not Williamson Act lands. Under the Ventura County guidance criteria, conversion of this amount of land from agricultural to non-agricultural use is not significant. However, if this alternative is implemented with any of the other Center Road Pipeline routes to the Center Road Valve Station, there would be a cumulative loss of 1 acre of Prime/Farmland of Statewide Importance soils, which is significant under Ventura County guidance criteria. Under CEQA guidelines, any conversions of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use also represents a significant impact. Therefore, this would represent an unmitigatable, Class I impact.

## 1 Point Mugu Shore Crossing/Casper Road Pipeline Alternative

2 This alternative would use HDB to transit to the beach, wetlands, and duck ponds;  
 3 therefore surface soils would not be disturbed. The HDB turnaround point would be  
 4 located on fill and therefore would not impact agricultural soils. North of the duck  
 5 ponds, the pipeline would be trenched through approximately 1.5 miles (2.4 km) of  
 6 Prime Farmland and Farmland of Statewide Importance soils to Hueneme Road. A total  
 7 of 4.5 acres (1.82 ha) each of Farmland of Statewide Importance and Prime Farmland  
 8 soils would be disturbed (Table 4.5-11). No known orchard trees or tree rows occur on  
 9 this route. Since the impacts of the pipeline installation would be similar to those for the  
 10 proposed pipeline route, all mitigation measures, except for those applicable to tree  
 11 rows and orchard trees, would be applied to this alternative to ensure that farmers  
 12 would be adequately compensated for the use of their land and any crop losses. These  
 13 mitigation measures would ensure that agricultural land is restored and construction  
 14 impacts would be reduced to below significance criteria.

**Table 4.5-11 Soil Association – Point Mugu Shore Crossing/Casper Road Pipeline**

Miles (km)	Soil Association	Soil Capability/ Grade <sup>a,b</sup>	Farmland Type <sup>c</sup>	Acres (Hectares) (50-foot [15-meter] Right-of-Way)
Disturbed during pipeline construction				
0.18 (0.3)	Camarillo Loam (Cd)	IIw-2/2	Statewide Importance	1.1 (0.45)
0.56 (0.9)	Camarillo Loam, Sandy Substratum (Ce)	IIw-2/2	Statewide Importance	3.4 (1.38)
0.75 (1.2)	Hueneme Sandy Loam (Hn)	IIw-2/2	Prime	4.5 (1.82)
Used for staging				
	Camarillo Loam, Sandy Substratum (Ce)	IIw-2/2	Statewide Importance	4.8 (1.9)
Disturbed during metering station construction				
	Camarillo Loam, Sandy Substratum (Ce)	IIw-2/2	Statewide Importance	3.7(1.5)
Permanent conversion				
	Camarillo Loam, Sandy Substratum (Ce)	IIw-2/2	Statewide Importance	0.9 (0.4)

Source: USDA 1970a.

Notes:

<sup>a</sup> Soil Capability designations:

II = Soils with moderate limitations that reduce the choice of plants or that require moderate conservation practices.

W = Water in or on the soil interferes with plant growth or cultivation (corrected by artificial drainage).

2 = Poor drainage or overflow hazard.

<sup>b</sup> Grades range from 1 to 6, with Grade 1 soils having few or no limitations that restrict use for crops and Grade 6 soils that are not suited for farming.

<sup>c</sup> California Department of Conservation 1998.

# **Impact AGR-9 Alt: Potential for Use of Agricultural Land for Staging Areas.**

***Under the Point Mugu Shore Crossing/Casper Road Pipeline Alternative, construction activities associated with staging areas could temporarily cause a loss of agricultural land, agricultural soils, crops, or crop production. Agricultural land that is preserved under the Williamson Act could be temporarily converted from agricultural land to non-agricultural land (Class II).***

Construction of this alternative would require a 50-foot (15.2 m) by 4,200-foot (1,280 m) staging area and a 4.8-acre (1.9 ha) HDB termination staging area (Entrix 2005). The proposed location of the staging area is an agricultural field east of the south end of Casper Road. This area would be used to pre-fabricate two 4,200-foot 24-inch diameter pipeline segments. This activity would take place on agricultural fields but would not involve any digging. This would only involve the use of agricultural fields but not the conversion of any to non-agricultural use. A 3.7-acre (1.5 ha) area in the same location would be needed for the construction footprint of the metering station (Entrix 2005). That the portion of this area would be permanently converted to non-agricultural purposes is discussed under Impact AGR-10 Alt.

Implementation of MM AGR-1b, MM AGR-1c, and MM AGR-1d would reduce the impact to farmers, if they choose to allow their land to be used as a staging area. Through these applicant measures and mitigation measures, the farmer would be compensated for the use of their land and their land would be subsequently restored after construction is completed. These mitigation measures would ensure that agricultural land used during staging is restored and construction impacts would be reduced to a level below significance criteria

# **Impact AGR-10 Alt: Permanent Conversion of Agricultural Land to Non-Agricultural Use.**

***Under the Point Mugu Shore Crossing/Casper Road Pipeline Alternative, construction of permanent facilities could cause a permanent loss of agricultural land, crops, or crop production. Agricultural land that is preserved under the Williamson Act could be permanently converted from agricultural land to non-agricultural land. Prime Farmland and Farmland of Statewide Importance soils could be converted to non-agricultural uses. (Class I).***

A 200-foot (61 m) by 200-foot (61 m) metering station would be constructed on 40,000 square feet (0.9 acre; 0.4 ha) of land at the south end of Casper Road for this alternative (Entrix 2005). The proposed location is on agricultural lands that have soils that are classified as Farmland of Statewide Importance, but they are not Williamson Act lands. Under the Ventura County guidance criteria, conversion of this amount of land from agricultural to non-agricultural use is not significant. However, if this alternative is implemented with any of the other Center Road Pipeline routes to the Center Road Valve Station, there would be a cumulative loss of 1 acre of Prime/Farmland of Statewide Importance soils, which is significant under Ventura County guidance criteria. Under CEQA guidelines, any conversions of Prime Farmland,

- 1 Unique Farmland, or Farmland of Statewide Importance to non-agricultural use also  
 2 represents a significant impact. Therefore, this would represent an unmitigatable  
 3 impact and would be a Class I impact.
- 4 Impacts and mitigation measures associated with agriculture and soils for the proposed  
 5 Project and for alternatives are summarized in Table 4.5-12.

**Table 4.5-12 Summary of Agriculture and Soil Resources Impacts and Mitigation Measures**

Impact	Mitigation Measure(s)
<p><b>AGR-1.</b> Construction activities could temporarily cause a loss of agricultural land, crops, or crop production (Class II).</p>	<p><b>AM AGR-1a. Compensation for Temporary and Permanent Loss of Agricultural Land, Crop Loss, Future Loss of Production, and Other Negative Impacts.</b> The Applicant or its designated representative would make every reasonable effort to acquire easements (temporary and permanent) expeditiously by negotiation. The easement rights would be appraised before the initiation of negotiations, and the property owner, or the property owner's designated representative, would be given an opportunity to accompany the appraiser during the inspection of the property.</p> <p><b>MM AGR-1b. Coordinate Pipeline Installation with Farmers.</b> The Applicant or its designated representative shall let the farmer decide if the farmer will remove seed/crops or whether the Applicant's contractor will remove the seed/crops.</p> <p><b>MM AGR-1c. Minimize Orchard Tree Removal.</b> The Applicant or its designated representative shall remove, box, maintain, and replant small orchard trees in the area between the TCE and the permanent ROW.</p> <p><b>MM AGR-1d. Post-Construction Restoration Measures.</b> The Applicant or its designated representative shall protect all substructures, such as drain tiles, during construction and replace any substructures if damaged.</p>
<p><b>AGR-2.</b> Operational activities could cause a loss of agricultural land, crops, or crop production. Construction of permanent facilities could cause a permanent loss of agricultural land, crops, or crop production. Agricultural land that is preserved under the Williamson Act could be permanently converted from agricultural land to non-agricultural land. Prime farmland or Farmland of Statewide Importance could be converted to no-agricultural uses (Class I).</p>	<p>None.</p>
<p><b>AGR-3.</b> Construction activities could result in topsoil and subsoil mixing, compaction, and/or introduction of weed/invasive species, thereby reducing agricultural productivity (Class II).</p>	<p><b>AM TerrBio-4a. Weed Management Plan</b> (see Section 4.8, "Biological Resources – Terrestrial").</p> <p><b>MM AGR-3a. Topsoil Salvage and Replacement.</b> The Applicant or its designated representative shall ensure that the upper 12 inches (0.3 m) of topsoil is salvaged, segregated</p>

**Table 4.5-12 Summary of Agriculture and Soil Resources Impacts and Mitigation Measures**

Impact	Mitigation Measure(s)
	<p>from the rest of the soil, and replaced on top of the disturbed areas.</p> <p><b>MM AGR-3b. Landowner Compensation for Soil Productivity Losses.</b> Prior to construction, the Applicant or its designated representative shall negotiate with landowners regarding measures to ensure that soil productivity is maintained and that the criteria for determining loss of soil productivity and the terms for compensation for such loss are determined..</p>
<p><b>AGR-4.</b> Dust generated during construction could be deposited on adjacent agricultural lands with planted crops, temporarily reducing productivity (Class II).</p>	<p><b>MM AGR-4a. Dust Suppression Water Quality.</b> For dust suppression, the Applicant or its designated representative shall use potable water sources or water sources approved for discharge.</p> <p><b>MM AIR-2b. Construction Fugitive Dust Plan</b> (see Section 4.6, "Air Quality").</p>
<p><b>AGR-5.</b> Loss of tree rows could reduce agricultural productivity (Class II).</p>	<p><b>MM TerrBio-2g. Tree Avoidance and Replacement</b> (see Section 4.8, "Biological Resources – Terrestrial").</p>
<p><b>AGR-6.</b> If the natural gas transmission line leaked and/or was ignited, the resulting fire could cause the loss of crops or the contamination of the soil in the vicinity of the leak or fire (Class II).</p>	<p><b>AM PS-3a. More Stringent Pipeline Design</b> (see Section 4.2, "Public Safety: Hazards and Risk Analysis").</p> <p><b>AM PS-4a. Pipelines to Meet Class 3 Design Criteria</b> (see Section 4.2, "Public Safety: Hazards and Risk Analysis").</p> <p><b>MM AGR-6a. Restoration After a Natural Gas Transmission Line Accident.</b> The Applicant or its designated representative shall restore the area that was either contaminated or burned as a result of a breach in the natural gas transmission line.</p> <p><b>MM PS-3c. Areas Subject to Accelerated Corrosion, Cathodic Protection System</b> (see Section 4.2, "Public Safety: Hazards and Risk Analysis").</p> <p><b>MM PS-4b. Pipeline Integrity Management Program</b> (see Section 4.2, "Public Safety: Hazards and Risk Analysis").</p> <p><b>MM PS-4c. Install Additional Mainline Valves Equipped with Either Remote Valve Controls or Automatic Line Break Controls</b> see Section 4.2, "Public Safety: Hazards and Risk Analysis").</p>
<p><b>AGR-7 Alt.</b> Under the Arnold Road Shore Crossing/Arnold Road Pipeline Alternative, construction activities associated with staging areas could temporarily cause a loss of agricultural land, crops, or crop production (Class II).</p>	<p><b>MM AGR-1b, MM AGR-1c, MM AGR-1d and AM AGR-1a</b> apply here.</p>
<p><b>AGR-8 Alt.</b> Under the Arnold Road Shore Crossing/Arnold Road Pipeline Alternative, construction of permanent facilities could cause a</p>	<p>None.</p>

**Table 4.5-12 Summary of Agriculture and Soil Resources Impacts and Mitigation Measures**

Impact	Mitigation Measure(s)
permanent loss of agricultural land, crops, or crop production (Class I)	
<b>AGR-9 Alt.</b> Under the Point Mugu Shore Crossing/Casper Road Pipeline Alternative, construction activities associated with staging areas could temporarily cause a loss of agricultural land, agricultural soils, crops, or crop production (Class II)	<b>MM AGR-1b, MM AGR-1c, and MM AGR-1d</b> apply here.
<b>AGR-10 Alt.</b> Under the Point Mugu Shore Crossing/Casper Road Pipeline Alternative, construction of permanent facilities could cause a permanent loss of agricultural lands, crops, or crop production (Class I).	None.

#### 4.5.6 References

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